

An Evidence – Based Approach to Library Instruction: Flipping the Classroom to Enhance Student Learning

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Outline

- Research questions
- Summary of research literature
- Key takeaways from the literature and applicability in two case studies:
 - Music research methods
 - Engineering one-shot session



EBLIP Steps

Step 1: Formulate a Question

Step 2: Find the Evidence

Step 3: Appraise the Evidence

Step 4: Apply the Evidence

Step 5: Evaluate the Results

Step 6: Disseminate Research

Research Questions

- Is the flipped classroom methodology an effective and engaging way to deliver library instruction for undergraduate students at the U of S?
- How do we put the teaching methodology into practice?

Definition

“The flipped classroom has two defining components: moving the lecture outside of class ... moving the practical application assignment, formerly homework, into the classroom” (pg. 8)

Arnold- Garza, S. (2014). The flipped classroom teaching model and its use for information literacy instruction. *Communications in Information Literacy*, 8(1), 7-22.

Definition

“In a flipped classroom much of the instruction takes place outside of class time ... Actual class time consists of active learning activities in which students practice and develop what they’ve learned” (pg. 249).

Datig, I. & Ruswick, C. (2013). Four quick flips: Activities for the information literacy classroom. *C&RL news*, 8(1), 249-251,257.

Theoretical Framework

- **Educational technology:** "the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources."
- **Active learning:** a process whereby students engage in activities, such as reading, writing, discussion, or problem solving that promote analysis, synthesis, and evaluation of class content.

Literature Review

- Consulted LIS and education literature
- “Flipped classroom” methodology begins to appear in the Education literature (K-12 and Higher Ed.) in 2011 and in the LIS literature in 2013.
- “Inverted classroom” methodology begins to appear in Ed. Lit in early 2000s

Literature Review

- Lage & Platt (2000)
- Sams and Bergmann (2008)
- Datig & Ruswick (2013)

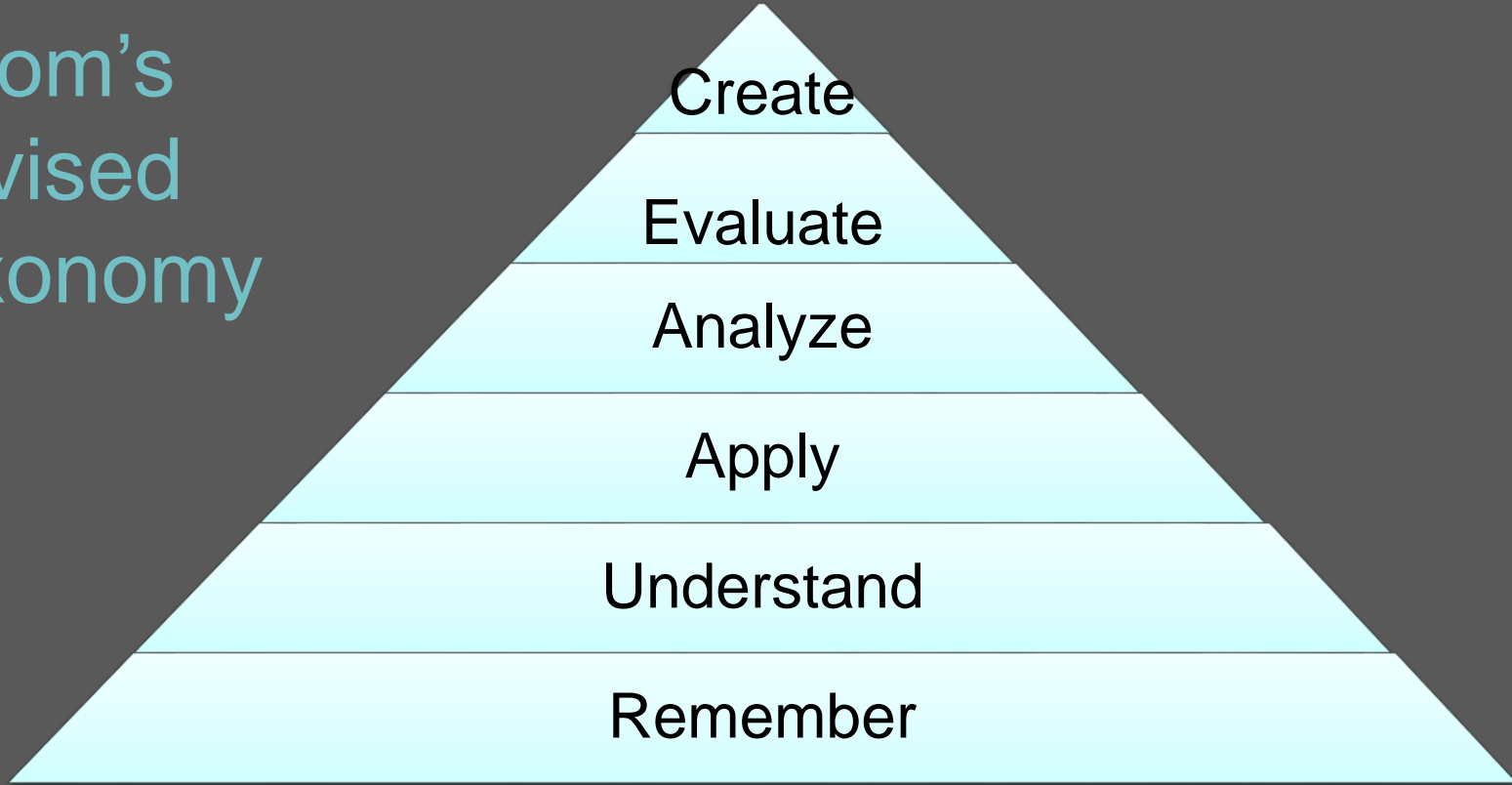


Technology

- Camtasia
- Jing
- Lecture Capture
- Adobe Illuminate / Captivate
- Guide on the Side



Bloom's Revised Taxonomy



Key elements of flipped teaching

1. Opportunity for students to gain first exposure prior to class
2. Incentive for students to prepare for class
3. Mechanism to assess student understanding
4. In-class activities that focus on higher level cognitive activities

Music Research Methods

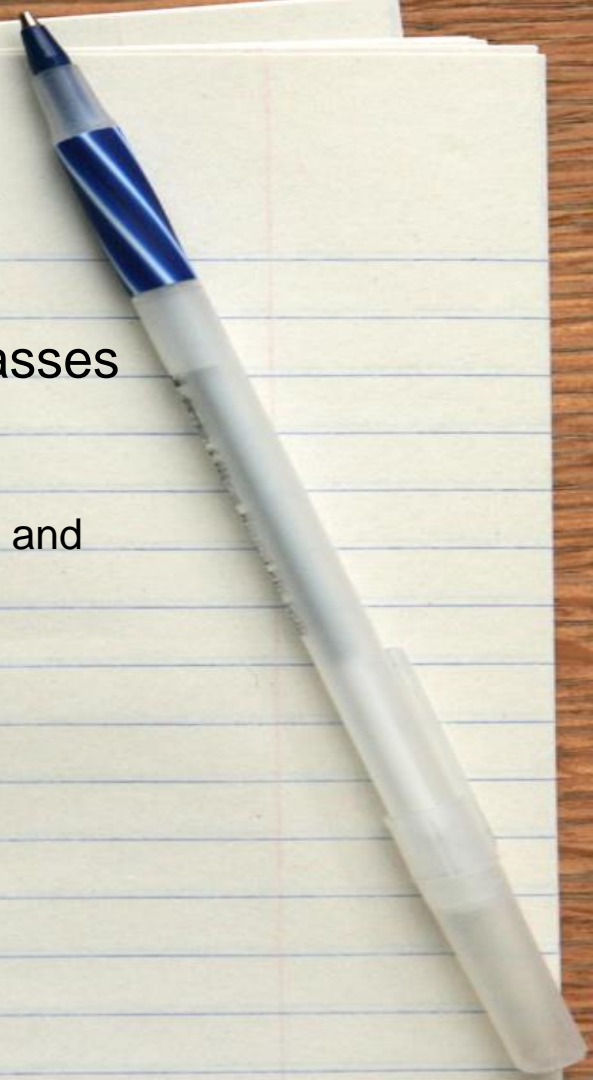
- Required course for all music undergraduate students
- Introduced teaching material in advance
- Discussion to review and conduct informal assessment
- Hands-on activity to reinforce and apply learning
- Students graded on in-class participation and final assignment

Music Research Methods

- Video posted on YouTube/Blackboard before class
- Assessment posted on Blackboard or at beginning of class
- In-class activity tied to learning objectives
- Handouts/resources posted on Blackboard

Engineering

- Target audience: fourth year design classes
- Components:
 - Pre-test for students to establish knowledge and confidence
 - Instructional Video as homework
 - In-class review of video
 - Hands-on activities
 - Critical evaluation of techniques
 - Directly tied to curriculum



Engineering

- GEOE 498 –
 - 13 students, 3.5 months to plan, design, and implement
 - offered winter 2014 and again in fall of 2014
- CE/ENVE/GEOE 495 –
 - 109 students, 2 weeks
 - fall 2014

Collaborate

“collaborating with faculty is essential to employing the flipped classroom for any course integrated library instruction” (pg. 15).

Arnold- Garza, S. (2014). The flipped classroom teaching model and its use for information literacy instruction. *Communications in Information Literacy*, 8(1), 7-22.

Purpose

“content is not going to be the thing we do. We’re going to help unpack the content” (pg. 2).

Berrett, D. (2012). How ‘flipping the classroom can improve the traditional lecture. *The Chronicle of Higher Education*, n/a, pp. 6. Retrieved from <http://search.proquest.com> on March 24, 2014.

Context

“Flipped classroom teachers almost universally agree that it’s not the instructional videos on their own, but how they are integrated into an overall approach, that makes the difference” (pg. 82).

Tucker, B. (2012). The flipped classroom: Online instruction at home frees class time for learning. *Education Next*, 12(1), 82-83.

Effectiveness

“online education as effective as classroom instruction, but no better ... average of thirty-five percent stronger learning outcomes for students taught in a blended format” (pg. 466).

Lemmer, C.A. (2013). A view from the flip side: Using the “inverted classroom” to enhance the legal information literacy of the international LL.M. student. *Law Library Journal*, 105(4), 461-491.

Thank you!

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